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EXAMINER

VAN HANDEL, MICHAEL P

ART UNIT PAPER NUMBER

2623

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Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Response to Amendment

1. This action is responsive to an Amendment filed 6/29/2006. Claims **1-4, 6, 7, 9** are pending. Claims **1, 2, 6** are amended. Claims **5, 8** are canceled.

Allowable Subject Matter

1. The indicated allowability of claims **5, 8** is withdrawn in view of the newly discovered reference(s) to Park. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1-3, 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaney in view of Park.

Referring to claim **1**, Chaney discloses a satellite broadcasting receiver (video signal processing system)(col. 3, l. 53-60 & Figs. 1, 12) for receiving scrambled or unscrambled digital satellite broadcasting signals (col. 8, l. 58-65), demultiplexing the signals (col. 5, l. 61-63 & Fig. 1), decoding the signals and outputting audio and video signals (col. 6, l. 17-34), a multichannel signal receiver (col. 12, l. 28-51 & Figs. 9-11) comprising:

- a descrambler 180, 1805 including a plurality of descrambling units for descrambling the scrambled digital satellite broadcasting signals (col. 12, l. 28-52);
- a signal receiver for receiving at least one digital satellite broadcasting signal via at least one antenna (the examiner notes that an antenna for receiving satellite broadcasting signals is inherent to the functionality of a satellite broadcasting reception system), and outputting the digital satellite broadcasting signal (col. 16, l. 9-37);
- a signal output unit (demux, decompressors, signal processors) 130, 140, 145, 150, 155 for demultiplexing the digital satellite broadcasting signal (col. 5, l. 61-63), demodulating the signal, and outputting audio and video signals (col. 6, l. 17-34);
- a common interface controller 183 (security controller) for checking whether the digital satellite broadcasting signal provided by the signal receiver is a paid signal or a free signal, outputting the digital satellite broadcasting signal to the signal output unit when the digital satellite broadcasting signal is a free signal (the examiner notes that in television broadcasting a paid signal relates to a scrambled signal and a free signal relates to an unscrambled signal), and outputting the digital satellite broadcasting signal to the descrambler and outputting a descrambled digital satellite broadcasting signal to the signal output unit when the digital satellite broadcasting signal is a paid signal (col. 8, l. 58-65 & Fig. 4); and
- a host central processing unit (CPU) 160 (microcontroller) for controlling the signal receiver (col. 4, l. 33-40), the common interface controller (col. 5, l. 58-60; col. 6, l.

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8-13, 59-62; col. 9, l. 17-36; col. 10, l. 10-26; & col. 12, l. 17-27) and the signal output unit (col. 15, l. 43-47).

Chaney does not disclose outputting a time lapse message when a number of paid digital satellite broadcasting signals is greater than the number of descrambling units. Park discloses determining whether a selected channel is scrambled, checking whether a smart card is inserted to determine whether the viewer is a charged channel subscriber, and outputting a message requesting the subscriber to insert the smart card if the smart card is not inserted (col. 4, l. 35-43 & Fig. 2). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify Chaney to include outputting a message requesting a subscriber to insert a smart card if a smart card is not inserted, such as that taught by Park in order to provide a more user-friendly interface.

Referring to claim 2, the combination of Chaney and Park teaches the receiver of claim 1, wherein at least some of the paid signals are scrambled (Chaney col. 3, l. 61-64 & col. 6, l. 8-13).

Referring to claim 3, the combination of Chaney and Park teaches the receiver of claim 1, wherein the descrambling process is performed by a common interface module (Chaney col. 8, l. 58-66 & Fig. 1).

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chaney in view of Park and further in view of Christine et al.

Referring to claim 4, the combination of Chaney and Park teaches the receiver of claim 1, wherein the common interface controller comprises:

- a transport stream interface for receiving at least one digital satellite broadcasting signal from the signal receiver, checking whether the digital satellite broadcasting signals is a paid broadcasting signal, supplying the checked paid broadcasting signal to the descrambler, controlling the descrambling process, and outputting the descrambled broadcasting signal provided by the descrambler to the signal output unit (Chaney col. 16, l. 23-37 & Fig. 12); and
- a host interface for controlling at least one common interface module of the descrambler according to the control of the host CPU (Chaney col. 15, l. 21-41 & Figs. 9, 11).

The combination of Chaney et al. and Park does not teach an inter integrated circuit (I²C) interface for controlling the host interface and the transport stream interface according to the control of the host CPU. Christine et al. discloses the use of a Phillips Inter-Integrated-Circuit Control (I²C) interface that is dedicated to the transmission and reception of command, status messages and video data between a host and a video decoder (col. 4, l. 24-38 & Fig. 1). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the combination of Chaney and Park to include an I²C interface, such as that taught by Christine et al. in order to provide an interface and communication protocol for allowing a host to control and communicate with other receiver components (col. 2, l. 1-5).

4. Claims 6, 7, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaney in view of Cowe and further in view of Park.

Referring to claims 6 and 7, Chaney discloses a satellite broadcasting signal receiving method (video signal processing method)(col. 3, l. 53-60 & Figs. 1, 12) for receiving scrambled or unscrambled digital satellite broadcasting signals (col. 8, l. 58-65), demultiplexing the signals (col. 5, l. 61-63), decoding the signals and outputting audio and video signals (col. 6, l. 17-34), a method for controlling a multichannel signal receiver (col. 12, l. 28-51 & Figs. 9-11), comprising:

(a) selecting at least one receiving channel of the digital satellite broadcasting signals according to a driving of the receiver (col. 4, l. 33-40);

(b) checking whether the broadcasting signal is a paid signal when the broadcasting signal is received (col. 8, l. 58-65 & Fig. 4);

(c) demultiplexing the corresponding broadcasting signal, decoding the signal and outputting the signal when the received broadcasting signal is that of a free broadcast in (b)(the examiner notes that in television broadcasting a free signal relates to an unscrambled signal)(col. 6, l. 17-34; col. 8, l. 58-65; & col. 15, l. 43-47); and

(d) descrambling the corresponding broadcasting signal, demultiplexing the broadcasting signal and decoding the same when the received broadcasting signal is that of a paid broadcast in (b)(the examiner notes that in television broadcasting a paid signal relates to a scrambled signal)(col. 5, l. 58-63; col. 6, l. 17-34; & col. 8, l. 9-12), wherein at least two descrambling units are provided (col. 12, l. 28-51 & Figs. 11, 12).

Chaney does not disclose checking a receipt state of a broadcasting signal of the selected broadcasting signals and outputting a warning message that no signal is received when the broadcasting signal is not received. Cowe discloses a method of sensing the presence of a video

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carrier signal on any one or more channels. If a microprocessor reports that no signal is present, a substitute default video text message can be automatically inserted stating "Please Stand By. Normal programming will resume as soon as possible (col. 14, l. 35-43)." It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify Chaney to include a method of sensing the loss of a video carrier signal and outputting a corresponding message to the user, such as that taught by Cowe in order to alert the user of a television system problem. The combination of Chaney and Cowe further teaches detecting whether a smart card is inserted or removed (Chaney col. 12, l. 52-67 & col. 13, l. 1-43). The combination of Chaney and Cowe does not teach displaying a time-lapse message when the number of scrambled broadcasting signals is greater than the number of descrambling units. Park discloses determining whether a selected channel is scrambled, checking whether a smart card is inserted to determine whether the viewer is a charged channel subscriber, and outputting a message requesting the subscriber to insert the smart card if the smart card is not inserted (col. 4, l. 35-43 & Fig. 2). It would have been obvious to one of ordinary skill in the art at the time that the invention was made to modify the combination of Chaney and Cowe to include outputting a message requesting a subscriber to insert a smart card if a smart card is not inserted, such as that taught by Park in order to provide a more user-friendly interface.

Referring to claim 9, the combination of Chaney, Cowe, and Park teaches the method of claim 6, wherein the descrambled broadcasting signals are demultiplexed (the examiner notes that the tuners of Chaney have two separate transport units (demultiplexers) 120, 121)(Chaney col. 4, l. 51-67 & col. 5, l. 51-65), decoded and output via respective different paths (Chaney states that the first and second processed signal components are decompressed in decompressor

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units 140 and 1405, respectively, and are further processed in signal processors 150 and 1505, respectively. Chaney further discloses that the output of a signal processor is suitable for display on a display device. Therefore, the examiner interprets the signal processors 150, 1505 of Fig. 12 as representing output paths)(Chaney col. 15, l. 47-50 & col. 6, l. 30-34) when at least two descrambled broadcasting signals are provided (Chaney Fig. 12).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Van Handel whose telephone number is 571.272.5968. The examiner can normally be reached on Monday-Friday, 8:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on 571.272.7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael Van Handel

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Examiner

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